NO. 35.

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

April 16 to 23, 1910.

NEW PLANT IMMIGRANTS.

ALLIUM CEPA. 27663. From Tiflis, Caucasus. A many headed variety of native Caucasian onion. The curiosity about this onion is that the seeds are sown out in the fall in beds or in rows and the young plants left over winter in the open; during the following summer they make a strong growth and produce often 5 or 6 onions in a cluster. (Meyer's introduction.)

AMBELANIA SP. 27577. From Para, Brazil. Presented by Mr. Walter Fischer. "This is called here 'Pepo do mato', i. e. 'cucumber of the woods'. It is a yellow fruit about the size and shape of a small cacao fruit. It contains 2 seed cavities surrounded by a white flesh of rather firm consistency containing an abundant supply of latex. It is not a fruit that I could recommend very highly. I have not been able to eat it, although it is eaten by the natives." (Fischer.) For distribution later.

AMYGDALUS FENZLIANA. 27336. Seeds from Tiflis, Caucasus, Russia. Plants sent under No. 27302. A shrubby, ornamental almond flowering in early spring, with white flowers. Grows in semi-arid sections in Eastern Caucasus. Suggested as stock for almonds and other stone fruits. (Meyer's introduction.)

ANDROPOGON SORGHUM. 27764. From Scott City, Kansas. Purchased from Mr. J. K. Freed. Mr. Freed states that he has grown this variety for 3 or 4 years, but its origin is unknown to him. He finds it ten days earlier than ordinary Amber sorgo but plants a little more seed to the acre. It yields fully 50 per cent more than ordinary Amber. (For experimental planting at Chillicothe, Texas.)

ANONA SP. 27567. From Chile. Presented by Mr. Hervey Gulick. "Seeds from a tree that I have not seen. The fruit is pear-shaped and the size of a large orange, occasionally reaching 6 inches in diameter. The flavor is a little pitchy or piney but very good. Should be suitable for central California." (Gulick.)

ANONA SPP. 27609-610. From Horqueta, Paraguay. Presented by Mr. T. R. Gwynn. 27609. "Fruit small; plant a good sized tree, as large as the orange tree, handsome, with splendid foliage." 27610. "Fruit large; plant a small bush, growing here in almost any soil. This is the best variety of all, according to my thinking." (Gwynn.) For distribution later.

BERBERIS CHILENSIS. 27419. From Mr. Jose D. Husbands, Limavida, Chile. "Michay. A yellow-flowered, thorned, dark-leaved evergreen bush, about 6 feet high, suitable for live fences and ornament. The Indians eat the fruit." (Husbands.) For distribution later.

CAESALPINIA BREVIFOLIA. 27420. From Mr. Jose D. Husbands, Limavida, Chile. "Algarobillo. A wild bush from the dry, rainless North near Hausco. This is a valuable industrial plant grown for its tannin, of which it has 40 per cent. It is also a beautiful flowering ornamental plant." (Husbands.)

CARICA PAPAYA. 27575. From Dongola, Ill. Purchased from the Rose Valley Nurseries. "The female plants of this variety bear a fruit the size of a large muskmelon, and are as easily fruited under glass as the tomato. The male plants produce, in long racemes and in large clusters, enormous quantities of beautiful, wax-like, star-shaped flowers." (Rose Valley Nurseries.) For distribution later.

CASTANEA SP. 27587. Seedlings of Corean chestnut from Yokohama, Japan, purchased from the Yokohama Nursery Company.

CEREUS QUISCO. 27421. From Mr. Jose D. Husbands, Limavida, Chile. "Guillaves. A cactus which grows very tall and perfectly straight, with an extra large, double, fragrant white flower and edible fruit." (Husbands.) For distribution later.

CITRULLUS VULGARIS. 27340. From near Kopetnari, Caucasus. A native Mingrelian variety of watermelon, having red flesh and said to be very sweet. To be tested in California or the South Rocky Mountain Region. (Meyer's introduction.)

CITRUS SP. 27566. From Kia-ying, China. Presented by Mr. Geo. Campbell. "Cuttings of the great Chinese lemon. Last week I saw a specimen which sprawled over quite a wide space, and was said to yield about 150 lbs. of fruit every year, mainly used for preserves, or rather, candying like citron." (Campbell.) For distribution later.

CITRUS AUSTRALASICA X CITRUS AURANTIUM (?) 27724-736. Grown at the Department Greenhouses, Washington, D. C. "These plants resulted from crossing the finger line, Citrus australasica, with the so-called Panama orange (Citrus mitis, commonly called To-kumquat). The general appearance of the seedlings is intermediate between the two parents. The seed parent and also the pollen-bearing parent are said to be much hardier than any other edible oranges. It is proposed to use this hybrid in future crossing, both for the production of a hardy orange and also for stocks for the orange and other citrus fruits in the Gulf States." (Oliver.)

CRATAEGUS SP. 27339. From Souchoum Kale, Caucasus. An evergreen, ornamental hawthorn, probably a form of C. pyracantha, of strong growing habits, but somewhat irregular growth; of value as an ornamental evergreen. (Meyer's introduction.)

CUCUMIS MELO. 27341. From near Kopetnari, Caucasus. A native Mingrelian variety of muskmelon of small size, but said to be very sweet. 27664. From Tiflis, Caucasus. Mixed varieties of native Caucasian muskmelons. There are said to be some very fine varieties among them. (Meyer's introductions.)

CUCUMIS MELO. 27779-788. Ten varieties of muskmelon from Cephalonia and Zante, Greece. Presented by Mr. Alfred L. Crowe, British Vice-Consul. "These are related in character to the Kassaba melon, a winter type grown in California." (Fairchild.)

CUCUMIS SATIVA. 27665. From Tiflis, Caucasus. A native Caucasian variety of cucumber; half-long, of green color. Said to be a very good sort, well worth being introduced. (Meyer's introduction.)

CUCURBITA PEPO. 27710. From Hankow, China. Presented by Mr. A. Sugden. "Orange gourd, ornamental, deeply grooved, green at center of ends." 27711. "Similar to the above, but deep red." (Sugden.) For distribution later.

CYDONIA SPP. 27698, 27703. Two varieties of quince from Belgrade, Servia. Forwarded by Mr. Robert S. Bergh, American Consul, from the Servian Ministry of Agriculture.

ELEAGNUS SP. 27775. From Tiflis, Caucasus. One of the best and most prolific sorts of oleasters. Fruits large, nearly

cylindrical in shape; color yellowish-gray, sun-side dark red. Skin very thin and easily peeled off from fruit when fully ripe. Flesh light grayish-yellow, tender and sweet. Eaten fresh or dried as a dessert; also stewed in milk. (Meyer's introduction.)

ERYTHRINA SP. 27660. From Mayaguez, Porto Rico. Received through Mr. D. W. May. "This is a most excellent leguminous shade for coffee and a wind-break for citrus groves." (May.)

EUGENIA JAMBOS. 27571. Rose apple from Ancon, Canal Zone, Panama. Presented by Mr. N. E. Coffey. "This fruit if properly candied is one of the finest for the purpose. The rose odor and flavor is remarkably pronounced and it certainly deserves attention." (Schultz.) For distribution later.

NOTES FROM FOREIGN CORRESPONDENTS.

CEYLON, Peradeniya. Mr. John C. Willis, Director, Royal Botanic Gardens, April 8. Sends photographs of typical school gardens in Ceylon.

CHILE, Limavida. Mr. Jose D. Husbands, March 28. Offers to send cuttings of Elqui grape. Says these make a particularly fine brandy called "Pisco", in general use there. Will send samples of the brandy and delicious raisins made from these grapes.

PALESTINE, Jerusalem. Mr. John E. Dinsmore sends an interesting catalogue of Palestine plants that may be consulted by anyone interested.

PERU, Lima. Mr. A. Weberbauer, April 12. Has been made Director of a park in Lima that is to be transformed into a zoological and botanical garden connected with the University. His work on the plants of the Peruvian Andes is soon to appear. Expects later to make some exploring trips and will send material.

PORTUGAL, Lisbon. Mr. Louis H. Ayme, April 12. Promises to send Elvas plums, specially prepared by a method possibly new to Americans, and budsticks of valuable carob varieties.

TRINIDAD, Port of Spain. Mr. F. Evans, April 23. Writes that he is leaving Trinidad for Honolulu and will probably visit Washington on his way.

LETTERS FROM MR. FRANK N. MEYER, AGRICULTURAL EXPLORER, TIFLIS, CAUCASUS, RUSSIA. In a letter of April 1, he says that Mr. A. C. Rolloff, Director of the Botanical Garden at Tiflis, is unusually well informed in regard to the economic products of the Caucasus, and wants to exchange seeds and plants with the Department. He offers Caucasian varieties of various fruits, as apples, pears, peaches, apricots, plums, pomegranates, etc.; also seeds and plants of various native trees, shrubs and herbaceous plants. The Department of Agriculture there has a corps of foresters all over the country, and practically any plant described from the Caucasus can be obtained at the Tiflis Botanical Garden. They have the largest collection in the world of native Caucasian plants and are increasing it all the time. Mr. Rolloff offers to send seeds of Medicago glutinosa, a very promising Caucasian alfalfa, and other drought resistant legumes adapted for fodder plants. April 2 he writes that in Asia Minor there are varieties of Prunus lauro-cerasus cultivated for their fruits, which are large and sweet and are considered by the Turks to be an especially fine fruit. Dr. Schmidt, Director of the Caucasian Museum, recommends that we try all the native Caucasian species of Trifolium, 53 of them. He recommends Trifolium resupinatum as a lawn plant on account of its delicious perfume. He says the finest hazelnuts grow around Trebizond and Kerasund in Asia Minor, and the Turkish Government has prohibited their exportation. He has heard that bamboos grown in colder localities do not split like those grown in the subtropical climate of Chakva. There are large clumps of Phyllostachys quilioi, P. mitis, and P. aurea, growing here and there in the Caucasus, and the people are beginning to make bamboo furniture. All these three species have stood nearly 10° below zero F. in Tiflis, and were not killed. The Government intends to build factories for utilizing the bamboos as soon as the supply gets large enough to warrant the outlay.

RECENT VISITORS.

BRAZIL. Doctor Edmundo Navarro de Andrade represents the Paulista R. R. Co., one of the largest railroads in Brazil. He is especially interested in the commercial growing of eucalypts and has a collection of over 73 varieties growing near Sao Paulo. He not only has these eucalypts, but has made a collection of the forest trees of Brazil, at least of his immediate region, and maintains an arboretum from which he can

secure seeds for us. He has agreed to send us, as soon as he returns to Brazil, as many as possible of the Southern Brazilian species of forest trees, shrubs and other useful plants, many of which are likely to prove hardy in portions of Florida, Porto Rico and the Philippines. According to Mr. Andrade, the most delicious fruit in Brazil is the so-called jaboticaba, the fruit of Eugenia jaboticaba. He says in addition to being a fruit tree it is very ornamental, having a roundish crown, suitable as a street tree. The fruits are black or blue-black in color, about the size of a large plum, having an objectionably large seed. When in flower the tree is said to be unusually beautiful, a mass of white blooms among the evergreen foliage. The fruits have a thin skin and a very sweet white pulp of the consistency of cream; they can be eaten in large quantities without deleterious effects. It is not a fruit which would bear shipment. It is possible that this fruit can be cultivated in Porto Rico and even Southern Florida.

OHIO, Columbus. Mr. J. H. Roys has been for the past two years experimenting extensively with Juncus roemerianus in an endeavor to discover a profitable use for this rush, which covers hundreds of square miles along the Atlantic coast.

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Inventory No. 20, including Numbers 25718 to 26047, has been issued. Among the things of particular interest in this number may be mentioned a collection of seeds of rattan palms; an importation of Queensland nuts from Australia; a collection of Vicia faba from India, Egypt, Holland, Hungary, China, Kashmir and Spain, for experimentation by the Office of Forage Crop Investigations; the "Monketaan" melon from Cape Colony, highly recommended by agriculturists there as food for stock; the Pahutan mango from the Philippines recommended by Mr. Lyon on account of its great productivity, its sweetness and juiciness and its probable good shipping qualities; Myrica nagi, an interesting Oriental fruit plant; Prunus tomentosa, recommended as an unusually hardy cherry, for trial as to hardiness of fruit bud, in the Northwest; a collection of peach, apricot and cherry seeds from the Himalayas; a collection of varieties of tropical corn from China; a collection of oats from Algeria, Palestine, Sweden and Turkey, and a wild olive from Cape Colony.

Papaya Trees in Bearing at Brownsville, Texas.

This papaya (Carica papaya), sometimes called the tropical papaw, was raised from seed obtained from the Ben Gut Province, Philippine Islands.

The papaya is a favorite breakfast fruit in the tropics. It contains papain, socalled "vegetable pepsin", which is much used as a digestant and remedy for dyspepsia. The green fruits are excellent when boiled as a vegetable and they also make good pickles. This fruit is worthy of serious consideration by small farmers in the regions where it can be grown, and it should be called to the attention of those handling breakfast fruits commercially.